Amendment to the Claims:

The following listing of claims is intended to replace all previous claims.

1-130. (canceled)

131. (currently amended) A composition comprising at least one biological material and at least one stabilizer in an amount effective to preserve said biological material for ~~its intended use following~~ sterilization with radiation, wherein said biological material is glassy or vitrified.

132. (currently amended) A composition comprising at least one biological material **with residual solvent content**, wherein the residual solvent content of said biological material is at a level effective to preserve said biological material for ~~its intended use following~~ sterilization with radiation, wherein said biological material is glassy or vitrified.

133. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 15%.

134. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 10%.

135. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 5%.

136. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 2%.

137. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 1%.

138. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 0.5%.

139. (previously presented) The composition of claim 132, wherein said residual solvent content is less than 0.08%.

140. (previously presented) The composition of claims 131 or 132, wherein said biological material is selected from the group consisting of monoclonal immunoglobulins, polyclonal immunoglobulins, glycosidases, sulfatases, urokinase and Factor VIII.

141-203. (canceled)

204. (previously presented) The composition according to claims 131 or 132, wherein said biological material is selected from the group consisting of cells, tissues, blood, blood components, proteins, enzymes, immunoglobulins, botanicals, food, ligaments, tendons, nerves, bone, demineralized bone matrix, grafts, joints, femurs, femoral heads, teeth, skin grafts, bone marrow, heart valves, cartilage, corneas, arteries, veins, meat, organs, limbs, digits, lipids, carbohydrates, collagen, chitin, stem cells, islet of Langerhans cells, genetically altered cells, red blood cells, white blood cells, proteinaceous material and combinations thereof.

205. (previously presented) The composition according to claim 204, wherein said blood components are selected from the group consisting of cellular blood components, blood proteins, liquid blood components and combinations thereof.

206. (previously presented) The composition according to claims 131 or 132, wherein said biological material is whole or processed.

207. (previously presented) The composition according to claim 204, wherein said collagen is selected from the group consisting of native collagen, afibrillar collagen, atelomeric collagen, soluble collagen and insoluble collagen.

208. (previously presented) The composition according to claim 204, wherein said biological material comprises a protein or peptide produced from cell culture.

209. (previously presented) The composition according to claims 131 or 132, wherein said biological material is selected from the group consisting of hearts, livers, lungs, kidneys, intestines and pancreas.

210. (currently amended) The composition according to claim 131, wherein said at least one stabilizer is selected from the group consisting of polyhydric alcohols, ~~trehalose, mannitol,~~ DMSO~~, glycerol~~ and **mixtures** ~~combinations~~ thereof.

211. (previously presented) The composition according to claim 131, wherein said at least one stabilizer comprises trehalose.

212. (previously presented) The composition according to claim 131, wherein said at least one stabilizer comprises a polyhydric alcohol.

213. (previously presented) The composition according to claim 131, wherein said at least one stabilizer comprises glycerol.

214. (previously presented) The composition according to claim 131, wherein said at least one stabilizer comprises mannitol.

215. (previously presented) The composition according to claim 131, wherein said at least one stabilizer comprises DMSO.

216. (previously presented) The composition according to claims 131 or 132, wherein said biological material is human.

217. (previously presented) The composition according to claims 131 or 132, wherein said biological material is mammalian.

218. (previously presented) The composition according to claims 131 or 132, wherein said biological material is bovine.

219. (previously presented) The composition according to claims 131 or 132, wherein said biological material is equine.

220. (previously presented) The composition according to claims 131 or 132, wherein said biological material is porcine.

221. (previously presented) The composition according to claims 131 or 132, wherein said biological material is transgenic or recombinant.

222. (previously presented) The composition according to claim 221, wherein said biological material is milk.

223. (previously presented) The composition according to claims 131 or 132, wherein said biological material is milk, collagen, plasma or serum.

224. (previously presented) The composition according to claims 131 or 132, wherein said biological material is selected from the group consisting of ligaments, tendons, nerves, bone, teeth, bone marrow, skin grafts, cartilage, corneas, arteries, veins and organs for transplantation.

225. (previously presented) The composition according to claims 131 or 132, wherein said biological material is tissue.

226. (previously presented) The composition according to claim 225, wherein said tissue is selected from the group consisting of bone, grafts, joints, femurs, femoral heads, heart valves, ligaments, hearts, livers, lungs, kidneys, intestines, pancreas, limbs, digits and demineralized bone matrix.

227. (previously presented) The composition according to claims 131 or 132, wherein said biological material is bovine serum.

228. (previously presented) The composition according to claim 227, wherein said biological material is fetal bovine serum.

229-263. (canceled)

264. (new) The composition according to claim 210, wherein said polyhydric alcohols are selected from the group consisting of trehalose, mannitol, glycerol and combinations thereof.

265. (new) A method for sterilizing a biological material that is sensitive to radiation, said method comprising

adding to said biological material at least one stabilizer; and

irradiating said biological material with radiation for a time effective to sterilize said biological material at a rate effective to sterilize and protect said biological material from said radiation, wherein said biological material is glassy or vitrified.

266. (new) A method for sterilizing a biological material comprising residual solvent content, wherein said biological material is sensitive to radiation, said method comprising

reducing the residual solvent content of said biological material; and

irradiating said biological material with radiation for a time effective to sterilize said biological material at a rate effective to sterilize and protect said biological material from said radiation, wherein said residual solvent content of said biological material is reduced to a level effective to preserve said biological material and said biological material is glassy or vitrified.

267. (new) The method of claim 266, wherein said residual solvent content is less than 5%.

268. (new) The method of claim 266, wherein said residual solvent content is less than 2%.

269. (new) The method of claim 266, wherein said residual solvent content is less than 1%.

270. (new) The method of claim 266, wherein said residual solvent content is less than 0.5%.

271. (new) The method of claim 266, wherein said residual solvent content is less than 0.08%.

272. (new) The method of claims 265 or 266, wherein said biological material is selected from the group consisting of monoclonal immunoglobulins, polyclonal immunoglobulins, glycosidases, sulfatases, urokinase and Factor VIII.

273. (new) The method according to claims 265 or 266, wherein said biological material is selected from the group consisting of cells, tissues, blood, blood components, proteins, enzymes, immunoglobulins, botanicals, food, ligaments, tendons, nerves, bone, demineralized bone matrix, grafts, joints, femurs, femoral heads, teeth, skin grafts, bone marrow, heart valves, cartilage, corneas, arteries, veins, meat, organs, limbs, digits, lipids, carbohydrates, collagen, chitin, stem cells, islet of Langerhans cells, genetically altered cells, red blood cells, white blood cells, proteinaceous material and combinations thereof.

274. (new) The method according to claim 273, wherein said blood components are selected from the group consisting of cellular blood components, blood proteins, liquid blood components and combinations thereof.

275. (new) The method according to claims 265 or 266, wherein said biological material is whole or processed.

276. (new) The method according to claim 273, wherein said collagen is selected from the group consisting of native collagen, afibrillar collagen, atelomeric collagen, soluble collagen and insoluble collagen.

277. (new) The method according to claim 273, wherein said biological material comprises a protein or peptide produced from cell culture.

278. (new) The method according to claims 265 or 266, wherein said biological material is selected from the group consisting of hearts, livers, lungs, kidneys, intestines and pancreas.

279. (new) The method according to claim 265, wherein said at least one stabilizer is selected from the group consisting of polyhydric alcohols, DMSO and mixtures thereof.

280. (new) The method according to claim 279, wherein said polyhydric alcohols are selected from the group consisting of trehalose, mannitol, glycerol and combinations thereof.

281. (new) The method according to claim 265, wherein said at least one stabilizer comprises trehalose.

282. (new) The method according to claim 265, wherein said at least one stabilizer comprises a polyhydric alcohol.

283. (new) The method according to claim 265, wherein said at least one stabilizer comprises glycerol.

284. (new) The method according to claim 265, wherein said at least one stabilizer comprises mannitol.

285. (new) The method according to claim 265, wherein said at least one stabilizer comprises DMSO.

286. (new) The method according to claims 265 or 266, wherein said biological material is human.

287. (new) The method according to claims 265 or 266, wherein said biological material is mammalian.

288. (new) The method according to claims 265 or 266, wherein said biological material is bovine.

289. (new) The method according to claims 265 or 266, wherein said biological material is equine.

290. (new) The method according to claims 265 or 266, wherein said biological material is porcine.

291. (new) The method according to claims 265 or 266, wherein said biological material is transgenic or recombinant.

292. (new) The method according to claim 291, wherein said biological material is milk.

293. (new) The method according to claims 265 or 266, wherein said biological material is milk, collagen, plasma or serum.

294. (new) The method according to claims 265 or 266, wherein said biological material is selected from the group consisting of ligaments, tendons, nerves, bone, teeth, bone marrow, skin grafts, cartilage, corneas, arteries, veins and organs for transplantation.

295. (new) The method according to claims 265 or 266, wherein said biological material is tissue.

296. (new) The method according to claim 295, wherein said tissue is selected from the group consisting of bone, grafts, joints, femurs, femoral heads, heart valves, ligaments, hearts, livers, lungs, kidneys, intestines, pancreas, limbs, digits and demineralized bone matrix.

297. (new) The method according to claims 265 or 266, wherein said biological material is bovine serum.

298. (new) The method according to claim 297, wherein said biological material is fetal bovine serum.